

area about thirty feet square that is shut in on three sides by masonry and solid rock, the open side being toward the north. In the coolest, darkest, dampest nook at the foot of the dam were a few more *hydrophilus*, not quite standing in the water, but on very moist rock.

Nearly half of my specimens have become greasy since capture,—a very rare trouble among the species of this family. It suggests a modification of their tissues from the normal type of the family to adapt them to the low temperature under which they exist.

LIANCALUS SIMILIS, n. sp.

♂. Differs from the foregoing as follows: thorax much duller in color; hypopygium destitute of filaments, with only minute

lamellae; fore metatarsus hardly one-fourth the length of the following joint, which is a little enlarged, with a slight fringe on the sides and a dense short brush below, the three following joints of equal length; wings on the apical two-fifths clouded with brown, the infuscated area rather indefinite in extent; margin of the wing not excised, third vein ending before the apex.

Length, 6.1 mm.; of wing, 7 mm.

♀. Differs from *hydrophilus* only in having the general color more pure green, without the extreme contrasts of blue and bronze; the wings of one specimen have more brown, which takes the form of three well defined spots, but this is evidently variable.

One male, two females, Washington (state), University of Kansas collection.

The principal differences between this species and *querulus* are in the structure of the male fore tarsi.

TWO NEW FORMS OF DIASPINAE.

BY T. D. A. COCKERELL, LAS CRUCES, N. MEX.

(1.) *Aspidiotus uvae*, Comstock var.
coloratus, n. v.

♀. Scale about $1\frac{1}{2}$ mm. wide, broad oval, flat, dull pale orange-brown, exuviae concolorous, thinly covered, first skin rather pale.

♀. Broad pyriform, pale orange. Three pairs of lobes visible in immature specimens, but the middle pair only prominent. In the adult only two pairs of lobes are present, and of these the second pair might almost be described as rudimentary. The middle lobes are close together but not touching, prominent, squared, notched on each side. The plates and incisions are practically as in *uvae*, so also are the anal and genital orifices—though the former in Comstock's figure

(Rep. U. S. Dept. Agr. for 1880) appears to be too small. The terminal segments are striate after the manner of *ostreaciformis*, etc., which I find is also the case with *uvae*. The grouped glands differ a little from *uvae*; as the median group, represented in *uvae* by two orifices, is wanting in *coloratus*; and the anterior and posterior lateral groups of *coloratus* run together, forming one long group of 11 to 15 orifices on each side—or may be separated by a short interval, in which case the cephalolateral group has about 8, and the caudolateral about 9 orifices.

Eggs bright lemon yellow.

♂ scale elongate oval, with the exuviae towards one end.

Hab. Las Cruces, New Mexico, 3,800 ft. alt., on *Chilopsis*; scales crowded on the

under side of the leaves, producing a pustular appearance on the upper side.

History. This scale was discovered by Hon. A. L. Christy in Las Cruces, and was examined by Prof. C. H. T. Townsend, who gave a short account of it as *Aspidiotus* n. sp.? in Bull. 7, N. Mex. Exper. Station (1892) p. 11. Prof. Townsend sent it to Prof. Comstock, who said it was unknown to him, and probably undescribed. On July 7, 1893, I found it in abundance close to the railway depot in Las Cruces, and after examining it, came to the conclusion that it was a new species. Although I had seen *A. uvae* in Jamaica, it did not occur to me that it could be that species, partly because Professor Comstock did not recognize it, and partly because the food-plant and habit were different. However, I sent some to Professor Riley, who remarked that the species came nearest to *A. uvae*; and that led me to compare it with specimens of *uvae* from Ithaca, N. Y., kindly sent by Mr. R. H. Pettit. The result is that I cannot by any means distinguish it as a species from *uvae*, and even as a variety it is not well marked, and would hardly be separated but for the difference of locality and food-plant.

So far as observed, it is confined to *Chilopsis*; and although grapes are extensively cultivated in and about Las Cruces, no case is known of its attacking the vines.

This adds another to the instances of Coccidae differing in habit though hardly or not at all in structure. They are what might be termed *physiological species*, in contradistinction to the ordinary or *anatomical* ones. They suggest the idea that organisms present differential characters of a class which we are hardly beginning to understand.

(2.) *Mytilaspis albus*, Cockerell, var.
concolor, n. v.

♀ scale elongate, narrow-mytiliform, grayish-white. Exuviae pale straw color.

♀. Elongate pyriform, black or brown-

black (dark brown by transmitted light), 1½ mm. long. Skin conspicuously striate (*albus* also has the skin striate). Three pairs of lobes; median lobes large and prominent, rounded, notched without, rather widely apart; 2nd lobes bifid, low, the caudal portion largest: third lobes low, bifid, the two parts about equal. A pair of spine-like plates between the median lobes; and one such plate beyond 2nd and 3rd lobes respectively. A spine by the outer margin of each lobe. Margin beyond the third lobe coarsely crenate. Margin in region of 2nd and 3rd lobes shows three or four sacs, elongated with bulbous ends—no doubt glandular. The anal orifice is at a considerable distance from the caudal extremity. The ventral glands are not in well-defined groups, but scattered. On each side of the anal orifice, slightly cephalad of it, is a group of about 8 orifices, not very close to each other; and between this and the third lobe is another scattered rather elongate group of about 8; and a few other orifices are scattered here and there, some single, others in little groups of 3 or 4.

Egg. The eggs (in caustic soda) are peculiar for being of a dirty prussian-green color.

Larva. Elongate oval, eyes blue-black. Last joint of antenna with two moderately long hairs. Tarsal knobbed hairs long and slender, with small knobs. Caudal filaments ordinary, but some broken off.

♂ scale as usual in *Mytilaspis*.

Parasite. Many ♀ scales show holes where a parasite has escaped.

Hab. Las Cruces, New Mexico; in great numbers on a chenopodiaceous plant, on which are also found *Orthesia* n. sp., larvae of *Lycaena exilis*, and other interesting things. It mostly infests the stems, but the leaves show some scales, both on upper and under sides.

When I found this, I thought it must be a new species, and it was surprising to find

that it could not be separated from *M. albus* which I lately described from specimens on a malvaceous plant in Jamaica! There are differences, indeed, in the color of the exuviae and other small points, whereon a new variety is founded—but after comparing *concolor* with the types of *albus*, I can see nothing to separate them specifically.

Thus we have:—

(a.) *albus*. Jamaica, on a malvaceous plant, alt. 50 feet above the sea, climate very humid, tropical.

(b.) *albus* v. *concolor*. New Mexico, on a chenopodiaceous plant, alt. 3,800 ft., climate very dry, not tropical. (One can scarcely say *temperate*, the summer heat being greater than in Jamaica). Truly a singular distribution!

A NOTE ON THE LARVA OF DATANA FLORIDANA GRAEF.

BY HARRISON G. DYAR.

Having examined some specimens of the larva of *Datana floridana* in the collection of the Museum of Comparative Zoology at Cambridge, I am able to confirm the description by Mr. Koebele (Bull. Brooklyn ent. soc. iv, 21) and to add that the lateral lines are slightly broader than the intervening black spaces, or as broad; not confluent at the extremities. The large, normal hairs are white, and arise singly from minute tubercles; the fine, short (secondary) hairs are black, very

inconspicuous without a lens, and not differing from the corresponding structures in *D. major* and *D. palmii*. The species is closely allied to *D. palmii*, and may prove, on further investigation, to be not specifically distinct. The following table may replace the one given by me (Ent. amer. vi. 132). I include the names of the three species whose larvae are unknown, in the order in which they will probably be found to belong.

MATURE LARVAE (Stage V).

Secondary hairs much shorter than primary ones.

Hairs concolorous, pale.

- Cercyl shield black. *angusii*.
- Cercyl shield yellow.
- Lateral lines separate at extremities. *ministra*.
[*californica*].
- Lateral lines confluent at extremities. *drexelii*.

Hairs not concolorous.

- Secondary hairs black; head red.
- Lateral stripes broken into spots. *major*.
- Lateral stripes continuous.
- Stripes narrower than the subdorsal black space; head pale red. *palmii*.
- Stripes broader than this space; head dark red. *floridana*.
[*modesta*].
- Secondary hairs brown; head black or red. *perspicua*.
[*robusta*].

Secondary hairs nearly as long as primary, concolorous.

- Cercyl shield black. *integerrima*.
- Cercyl shield yellow. *contracta*.